-732 P058/071 F-681

# PATENT COOPERATION TREATY

## **PCT**

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

	cants 037P		nt's file reference	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)						
				International filing date ( 26.03.2003	daylmonthlye	ar)	Priority date (day): 28.03.2002	nonthlyear)		
International Patent Classification (IPC) or both national classification and IPC F42D1/055, F42D1/055										
Applicant SMI TECHNOLOGY (PTY) LIMITED et al:										
1.	<ol> <li>This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> </ol>									
2.	This REPORT consists of a total of 4 sheets, including this cover sheet.									
	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).									
	These annexes consist of a total of 10 sheets.									
3.	This	repo	t contains indications	elating to the following it	ems:					
	1	<b>⊠</b>	Basis of the opinion	•			•			
	H		Priority							
	iii		•	opinion with regard to n	ovelty, inve	ntive step a	nd industrial appli	cability		
	IV		Lack of unity of inver		•					
	٧									
	VI		Certain documents c	ited						
	VII			international application						
	VIII  Certain observations on the international application							i		
Date of submission of the demand					Date of con	pletion of thi	s report			
04.0	9.20	03	•		07.06.200	)4				
		exami	address of the international authority:	nal	Authorized	Officer				
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465					Herrera, Telephone	VI No. +49 89 2	399-2090			



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

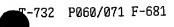
International application No.

PCT/ZA 03/00041

 With regard to the elements of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Description, Pages								
	1-19	<del>)</del>	as originally filed						
			•						
	Clai	ms, Numbers	, 8						
	1-37	7	filed with telefax on 13.02.2004						
	Ora	wings, Sheets							
	1.8-		as originally filed						
2.	With	Vith regard to the language, all the elements marked above were available or furnished to this Authori anguage in which the international application was filed, unless otherwise indicated under this item.							
	The	se elements were av	ments were available or furnished to this Authority in the following language: , which is:						
		the language of a tra	unstation furnished for the purposes of the international search (under Rule 23.1(b)).						
			lication of the international application (under Rule 48.3(b)).						
		the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).							
3.	Witl inte	regard to any nucleotide and/or amino acid sequence disclosed in the international application, the mational preliminary examination was carried out on the basis of the sequence listing:							
		contained in the inte	rnational application in written form.						
		filed together with th	ner with the international application in computer readable form.						
		furnished subsequer	rnished subsequently to this Authority in written form.						
			urnished subsequently to this Authority in computer readable form.						
		The statement that t in the international a	he subsequently furnished written sequence listing does not go beyond the disclosure pplication as filed has been furnished.						
	<b>-</b>	The statement that t listing has been furn	he information recorded in computer readable form is identical to the written sequence ished.						
ŧ.	The amendments have resulted in the cancellation of:								
		the description,	pages:						
		the claims,	Nos.:						
		the drawings,	sheets:						
		_							
			·						

Form PCT/PEA/409 (January 2004)





International application No.

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims
1-37
No: Claims
Inventive step (IS)

Yes: Claims
1-37
No: Claims
Industrial applicability (IA)

Yes: Claims
1-37
No: Claims

2. Citations and explanations

see separate sheet

## INTERNATIONAL PRELIMINARY

International application No. PCT/ZA 03/00041

### **EXAMINATION REPORT - SEPARATE SHEET**

#### Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US-A-4 976 199 (MORAITIS THRASYVOULAS ET AL) 11 December 1990 (1990-

D2: EP-A-0 897 098 (SMI TECHNOLOGY PTY LIMITED) 17 February 1999 (1999-02-17)

In particular the document D1 is regarded as being the closest prior art to the subjectmatter of claims 1, 16, 26 and 30 and shows (the references in parentheses applying to this document): .

a blasting operation device and method with several detonator regions, wherein the shock wave caused by a detonation in a first hole is monitored at a second, spaced apart detonator region. The sensor in this second detonator region is connected via dedicated leads to a circuit controller. Different parameters of the blast are measured and communicated to a central computer, that calculates the whole blasting operation.

The subject-matter of claims 1, 16, 26 and 30 differs from this known the arrangement in D1 in that the controlling means remote from the blast receive input of determined blast features signals directly from the first detonation region or the subsequent ones, rather than receiving signals referring to the previous blast.

The subject-matter of the above clams is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as increasing accuracy whilst diminishing complexity, in particular regarding the wiring operation.

The solution to this problem proposed in the above claims of the present application is considered as involving an inventive step (Article 33(3) PCT), since none of the available citations mention or suggest the possibility of the controlling unit sensing blast features directly from the blast region during the blast.

The dependent claims define narrower embodiments of the main invention, so that they also fulfil the requirements of Article 33 PCT.